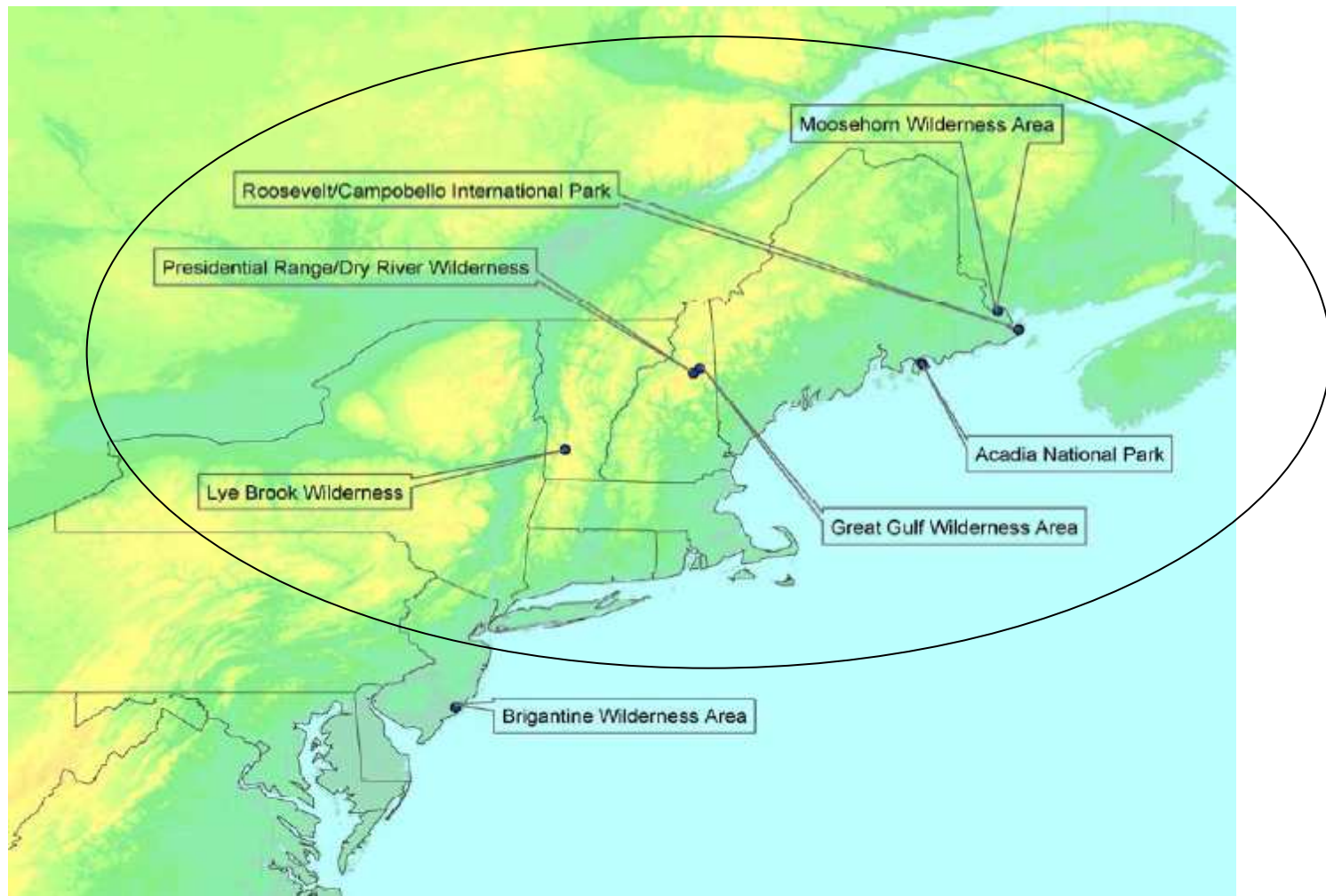


Regional Haze SIP

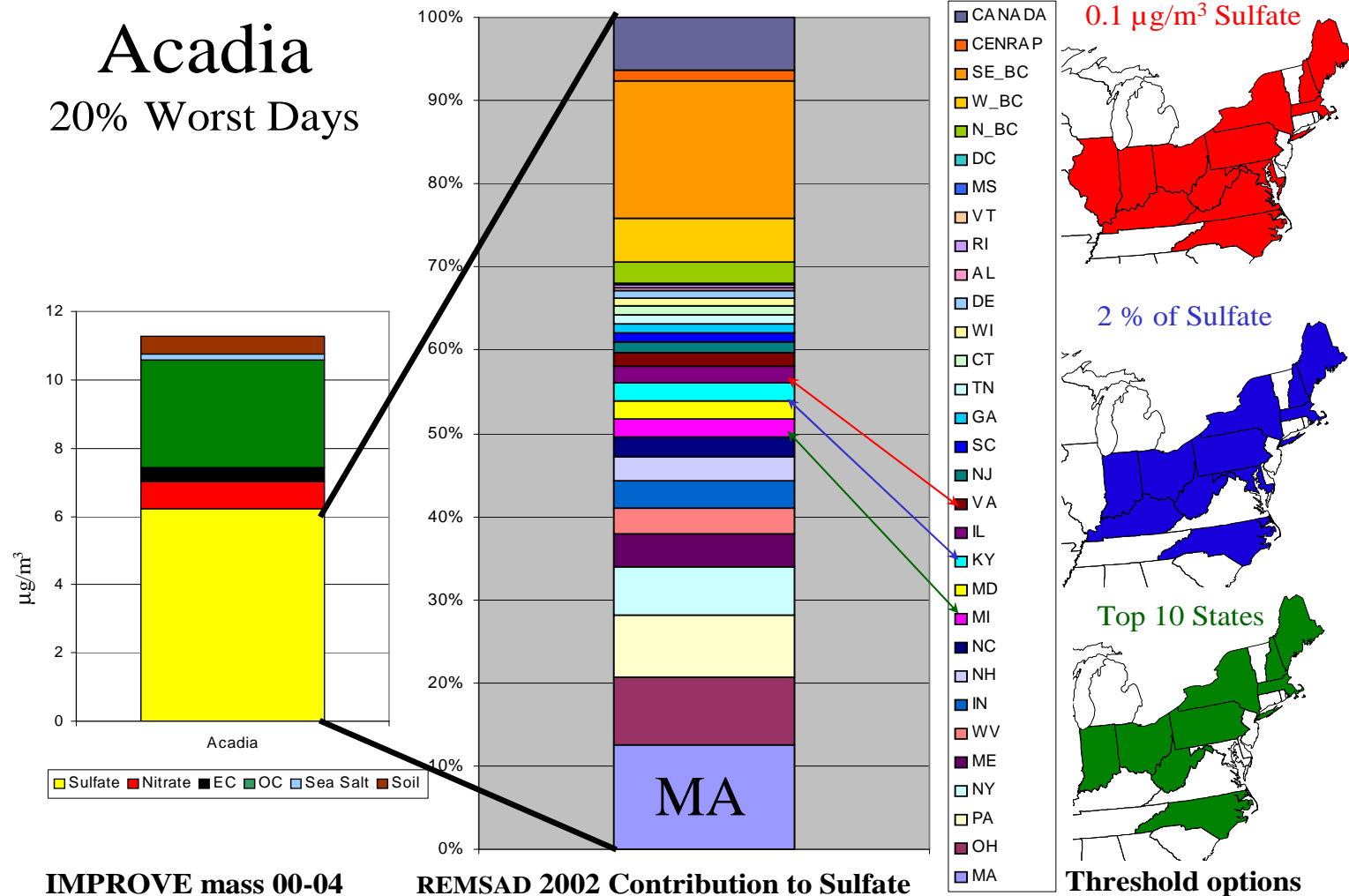
SIP Steering Committee

August 7, 2008

Class I Areas Impacted by Emissions from Massachusetts Sources



Modeled 2002 Contributions to Sulfate by State at Acadia National Park



MANE-VU “Ask”

- Timely Implementation of Best Available Retrofit Technology (BART)
- Low Sulfur Fuel Oil Strategy
- 90% Reduction in SO₂ Emissions from each of the top 167 stacks at 100 EGUs identified by MANE-VU as contributing to haze
- Continued evaluation of other control measures

BART

- Applies to NO_x, SO₂, and PM_{2.5} Emissions
- 26 Major point source categories
- 250 tons/year of any haze-forming pollutant
- Commenced operation between Aug. 7, 1962 – Aug. 7, 1977

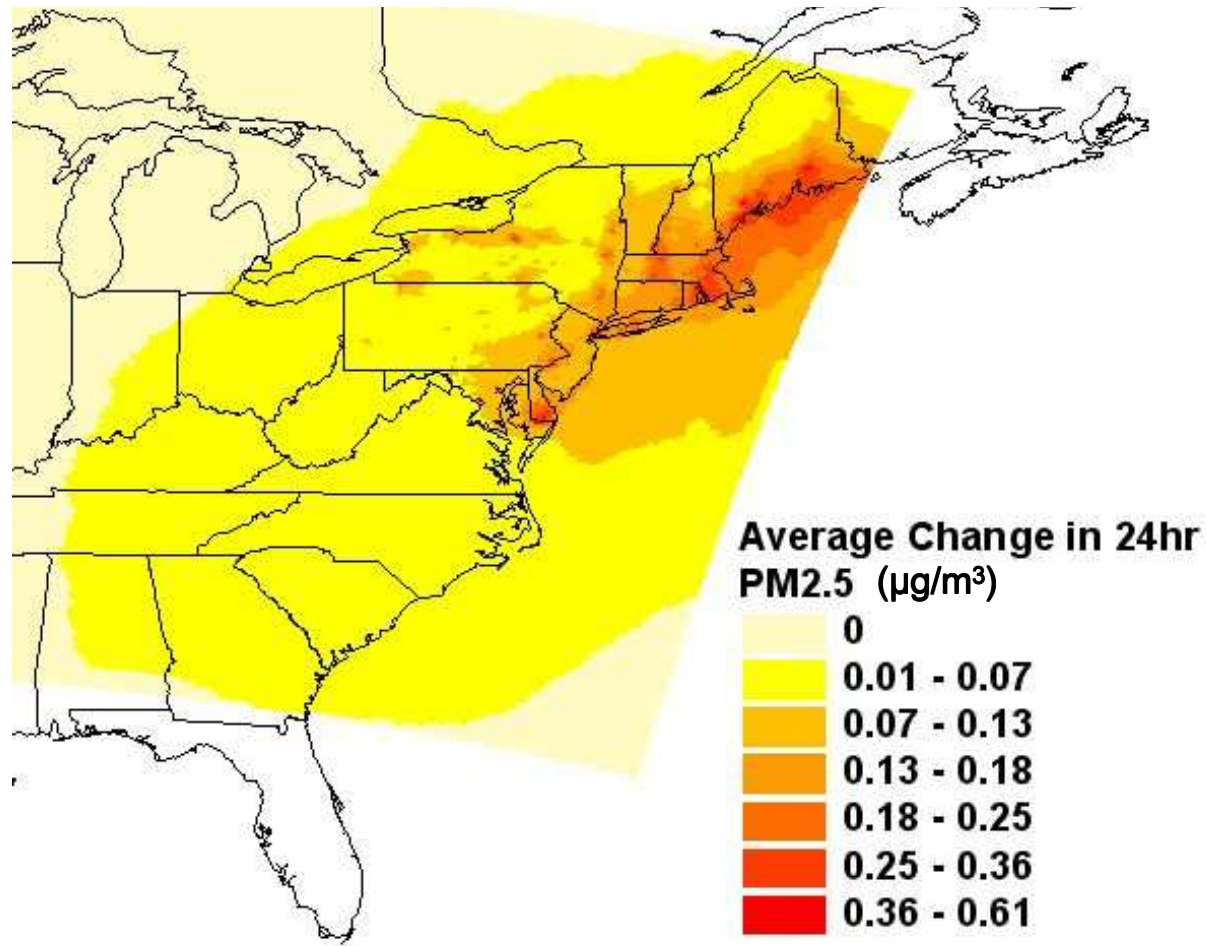
MA BART-Eligible Sources

I.D.	Source	Units	Type
1190012	Boston Generating - New Boston	Unit 1	EGU
1190128	Boston Generating – Mystic	Unit 7	EGU
1190491	Braintree Electric	Unit 3	EGU
1200061	Dominion - Brayton Point	Units 1, 2, 3, and 4	EGU
1190194	Dominion - Salem Harbor	Unit 4	EGU
1190092	Harvard University - Blackstone	Units 11 and 12	EGU
1200054	Mirant - Canal Electric	Units 1 and 2	EGU
1190093	Mirant - Kendall LLC	Units 1 and 2	EGU
1200067	TMLP - Cleary Flood	Units 8 and 9	EGU
1190175	Eastman Gelatin	Units 1, 2, 3 and 4	ICI Boilers/Chemical Processing
1190138	General Electric Aircraft - Lynn	Unit 3	ICI Boilers/Chemical Processing
420086	Solutia	Units 9 and 10	ICI Boilers/Chemical Processing
1190507	Trigen - Kneeland St	Unit 3	ICI Boilers/Chemical Processing
1197654	Wheelabrator – Saugus	Units 1 and 2	Municipal Incinerator
1190484	Exxon Mobil – Everett	All Process Units	Petroleum Storage
1190487	Global Petroleum – Revere	All Process Units	Petroleum Storage
1190483	Gulf Oil – Chelsea	All Process Units	Petroleum Storage

MANE-VU Low-Sulfur Fuel Oil Strategy

Oil	Sulfur Content	Date
#2	500 ppm	2014
#4	1.0%	2014
#6	1.0%	2014
#2	15 ppm	2018
#4	0.25-0.5%	2018
#6	0.5%	2018

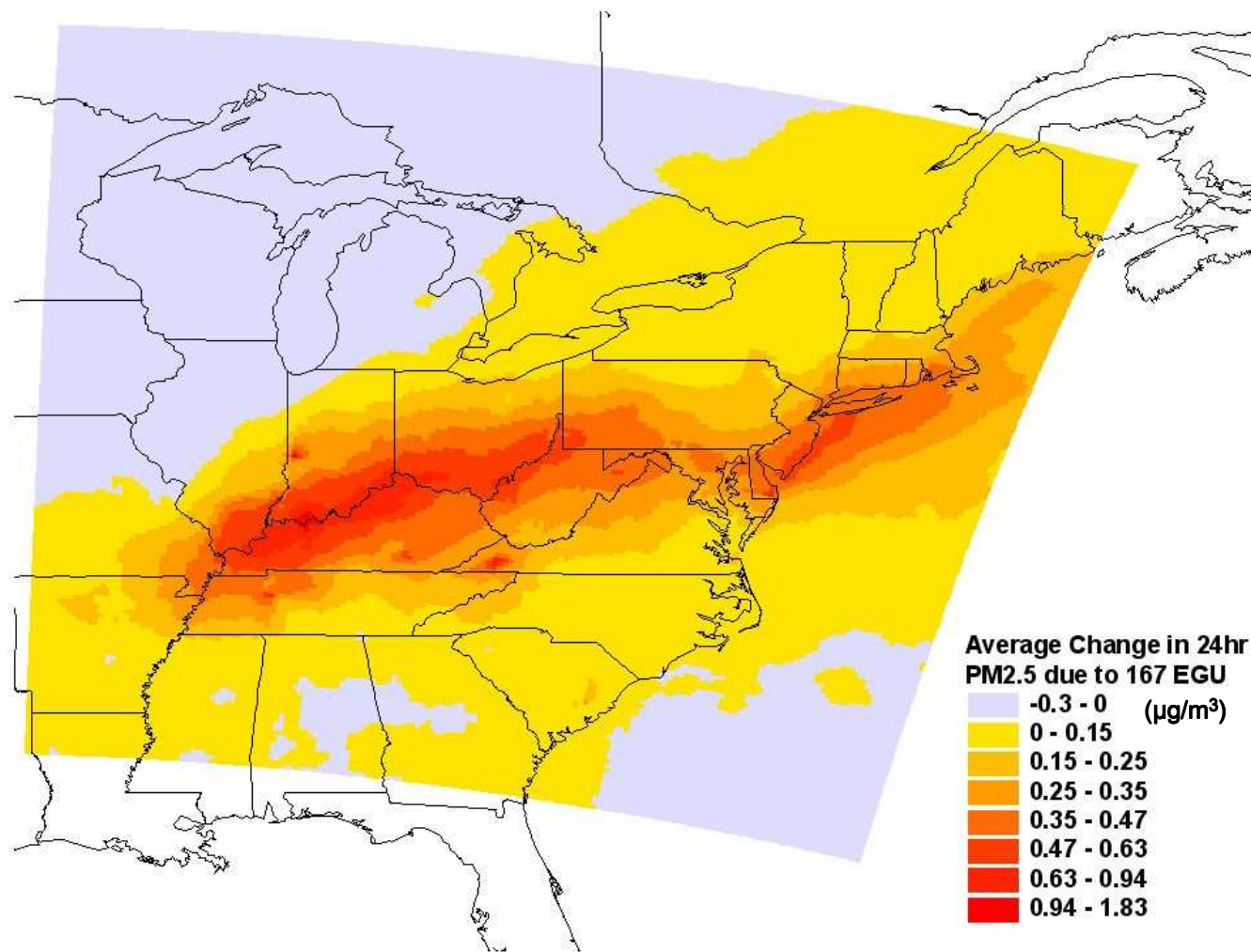
Average Change in 24-hr PM_{2.5} due to Low-Sulfur Fuel Strategies



90% Reduction at 167 Stacks

Facility	Stack	Primary Fuel	SO2 Controls	2002 SO2 Emissions (tpy)	2018 Reduced SO2 Emissions (tpy)
Brayton Point	1	Coal	SDA by 10/08 + 7.29	9,254	925
Brayton Point	2	Coal	SDA by 10/08 + 7.29	8,853	885
Brayton Point	3	Coal	Dry Scrubber or other SO2 control by 08/13 + 7.29	19,450	1,945
Canal Station	1	Residual Oil	7.29 + LSF	13,066	1,307
Canal Station	2	Residual Oil	7.29 + LSF	8,948	895
Salem Harbor	1	Coal	7.29	3,425	343
Salem Harbor	3	Coal	7.29	4,999	500
Salem Harbor	4	Coal	7.29	2,886	289
Mt. Tom	1	Residual Oil	SDA + 7.29 + LSF	5,282	528
Somerset	8	Coal	7.29 + potential conversion to syngas	4,399	440

Average Change in 24-hr PM_{2.5} due to 90% Reduction in SO₂ Emissions from 167 Stacks



Other Control Measures

- Construction Activities
- Agricultural and Forestry Smoke Management
- Outdoor Hydronic Heaters (Outdoor Wood Boilers)

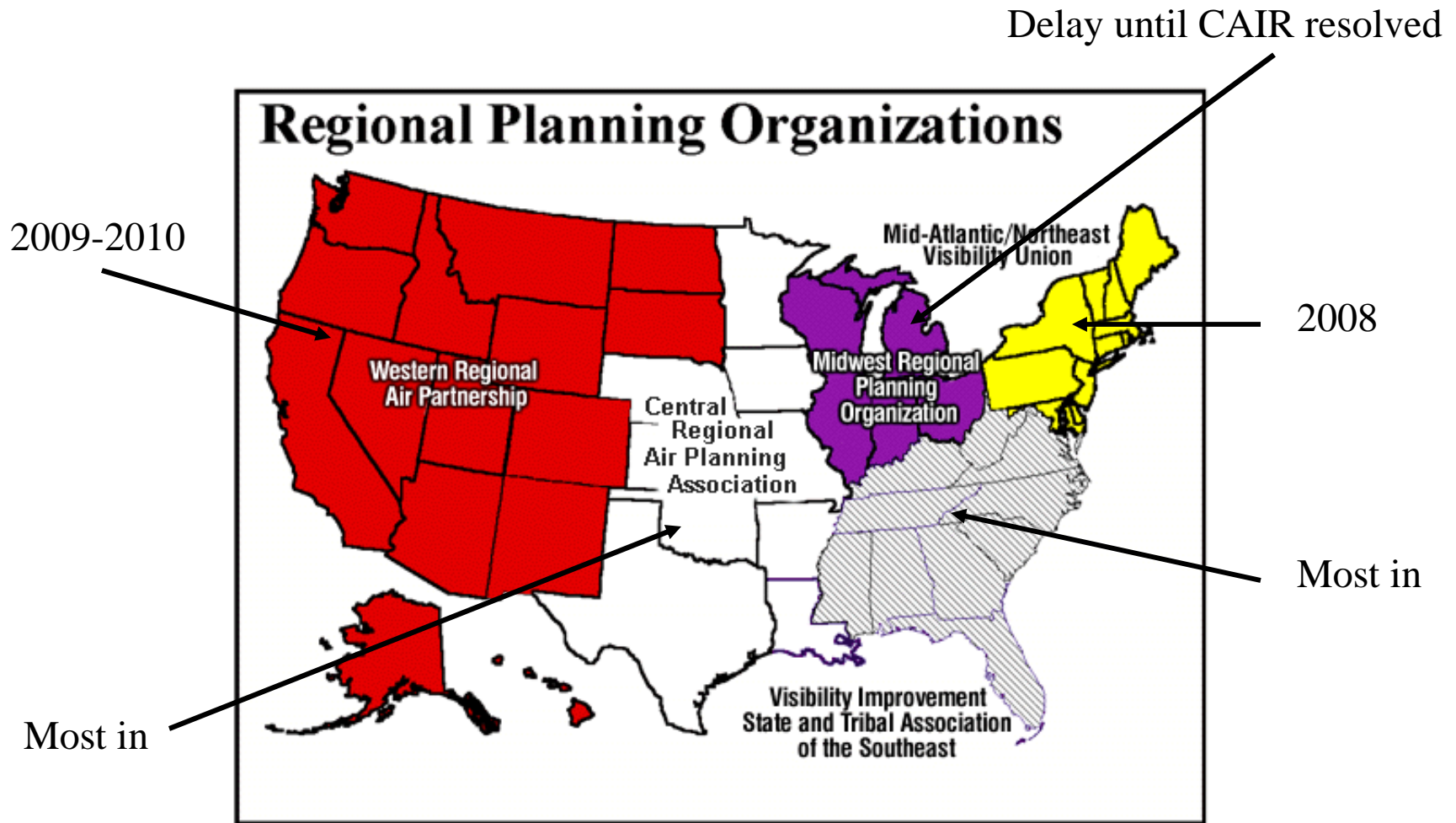
FLM Comments on Other State SIPs

- Modeling data in BART determinations
- Organic carbon controls (2nd main contributor to haze in NE)
- Smoke management plans
- PSD
- Regional consistency: MANE-VU vs VISTAS modeling

Regional Haze SIP Process

- Massachusetts RH SIP currently in internal review
- To Federal Land Managers (FLMs) and EPA for 60 day review
- Address FLM and EPA comments
- Out for public hearing

CAIR Vacatur



In general, most states are not going to change their SIPs due to the CAIR vacatur. The thinking is to get SIPs in by Oct 3 deadline to avoid a Failure to Submit letter, even though SIPs may be insufficient.